



# Water Forward Implementation Progress Update

## Austin Water Oversight Committee

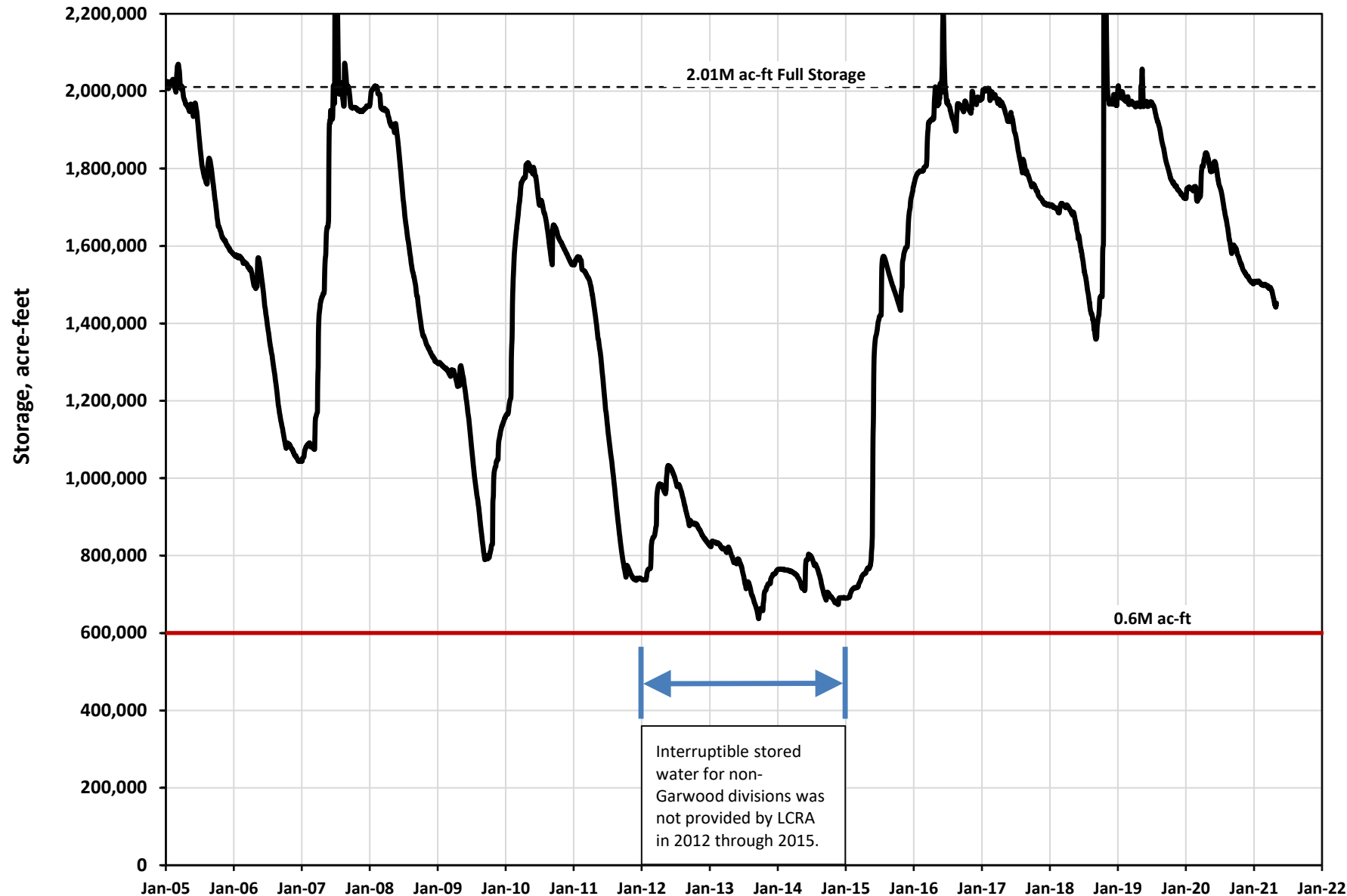
5/13/2021





# Combined Storage of Lakes Buchanan and Travis

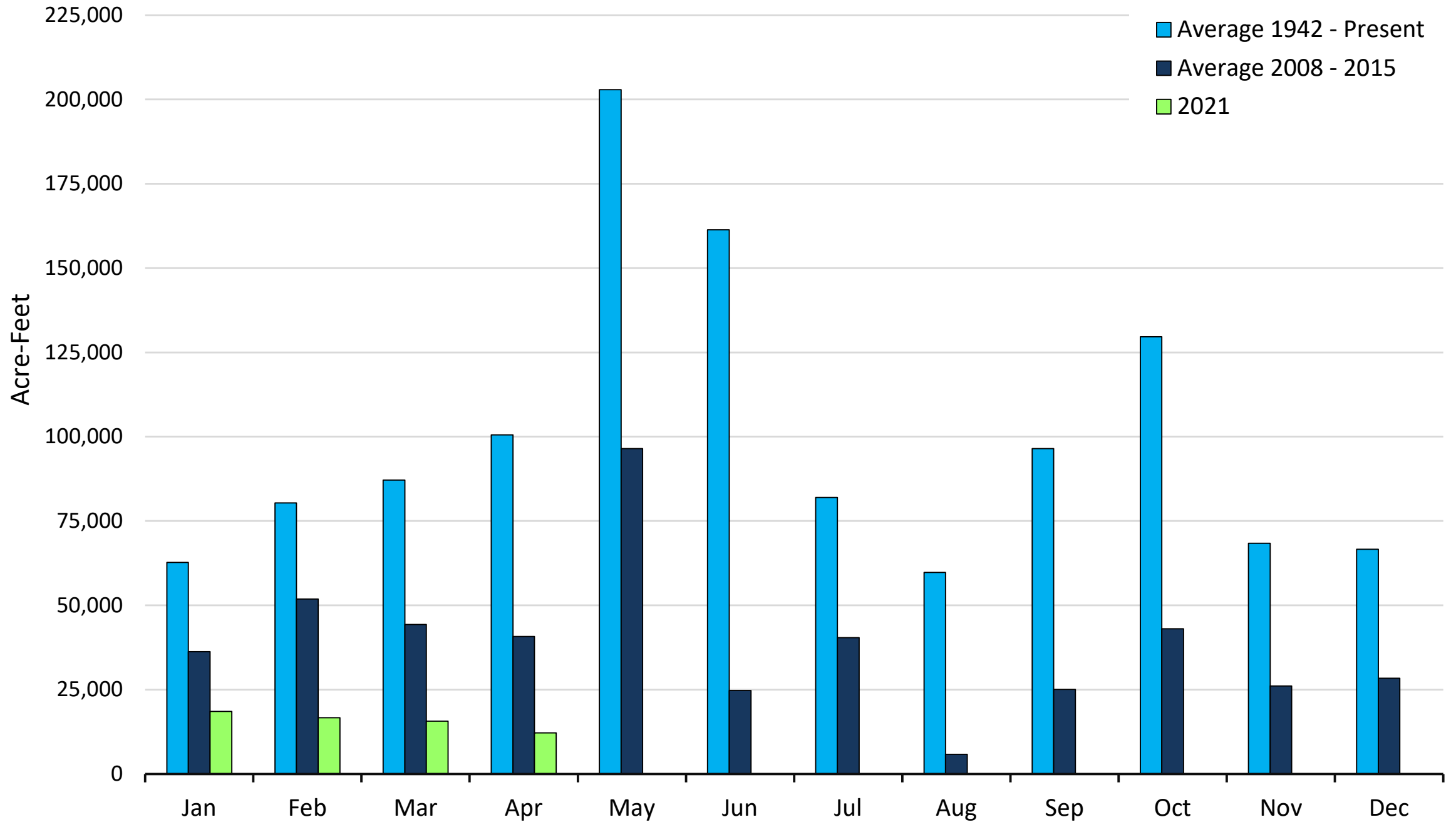
January 1, 2005 through May 1, 2021



## Current Combined Storage

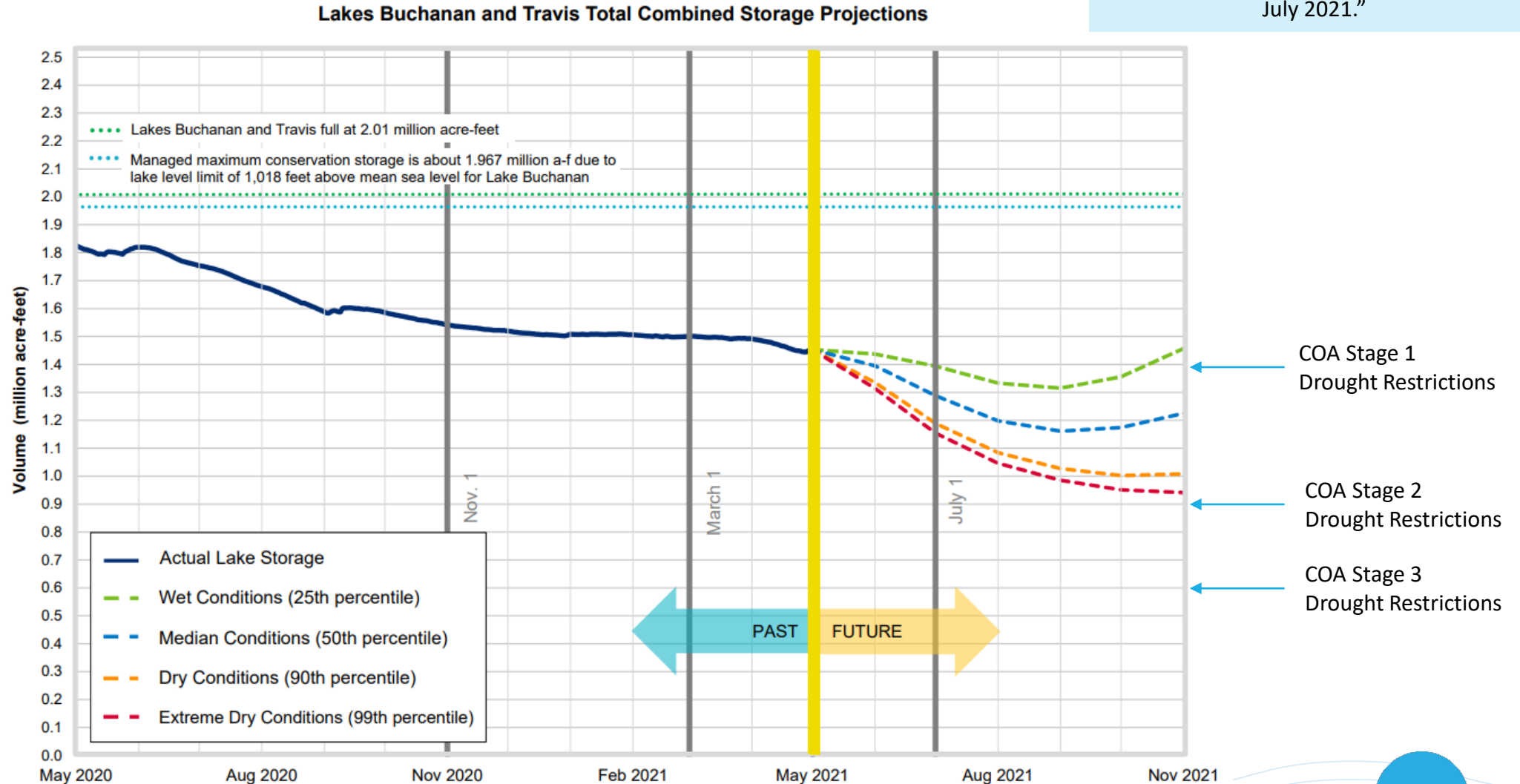


# Highland Lakes Inflows



# LCRA Lake Levels Forecast

**National Weather Service  
Climate Prediction Center 4/8/21:**  
“A transition from La Niña to ENSO-Neutral  
is likely in the next month or so, with an  
80% chance of ENSO-neutral during May-  
July 2021.”



Date: May 1, 2021

Note: One acre-foot equals 325,851 gallons



# Water Forward 2018 (WF18)

## Overview

- ◆ Approved by Council in November 2018
- ◆ An Austin Water-led interdepartmental effort to develop a 100-year water plan that reflects our community's values
- ◆ Key drivers included population growth, droughts, and climate change
- ◆ Council-appointed Task Force met monthly
- ◆ Community outreach throughout the plan development process
- ◆ Goal is to ensure a diversified, sustainable, and resilient water future, with strong emphasis on water conservation
- ◆ Planned to be updated on a five year cycle



# Water Forward 2018 Implementation

## Reducing Demand

- Benchmarking
- Advanced Metering Infrastructure
- Water Loss Control
- Conservation Ordinances and Incentives

## Moving Reuse Forward

- Onsite Reuse
- Centralized and Decentralized Reclaimed

## Protecting our Core Colorado River Supplies

- Working with our Regional Partners

## Building Resiliency

- Aquifer Storage and Recovery
- Indirect Potable Reuse

Continued Stakeholder Engagement



# Awards & Recognition

## Austin Water, TX



**2020 Partnering & Engagement**



“The innovations coming to the water sector present an opportunity for a paradigm shift in the way utilities think about and solve long-standing challenges to clean and reliable water,” said Jackie Jarrell, WEF President. “WEF is excited to recognize Austin Water for embracing innovative ways to better serve their communities.”

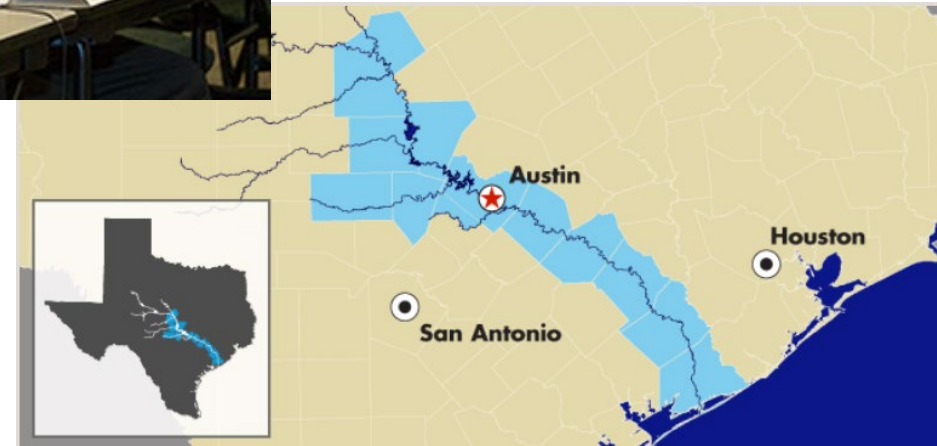
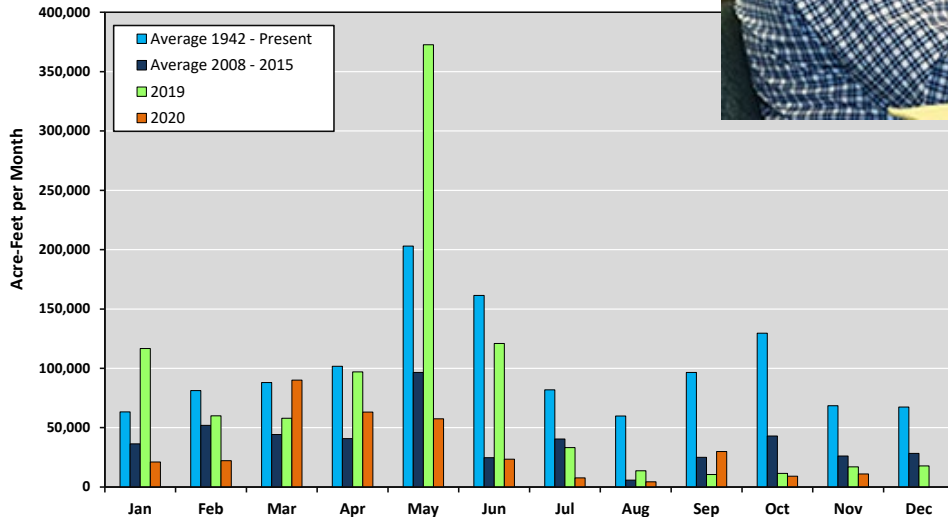




# Protecting Our Core Colorado River Supplies



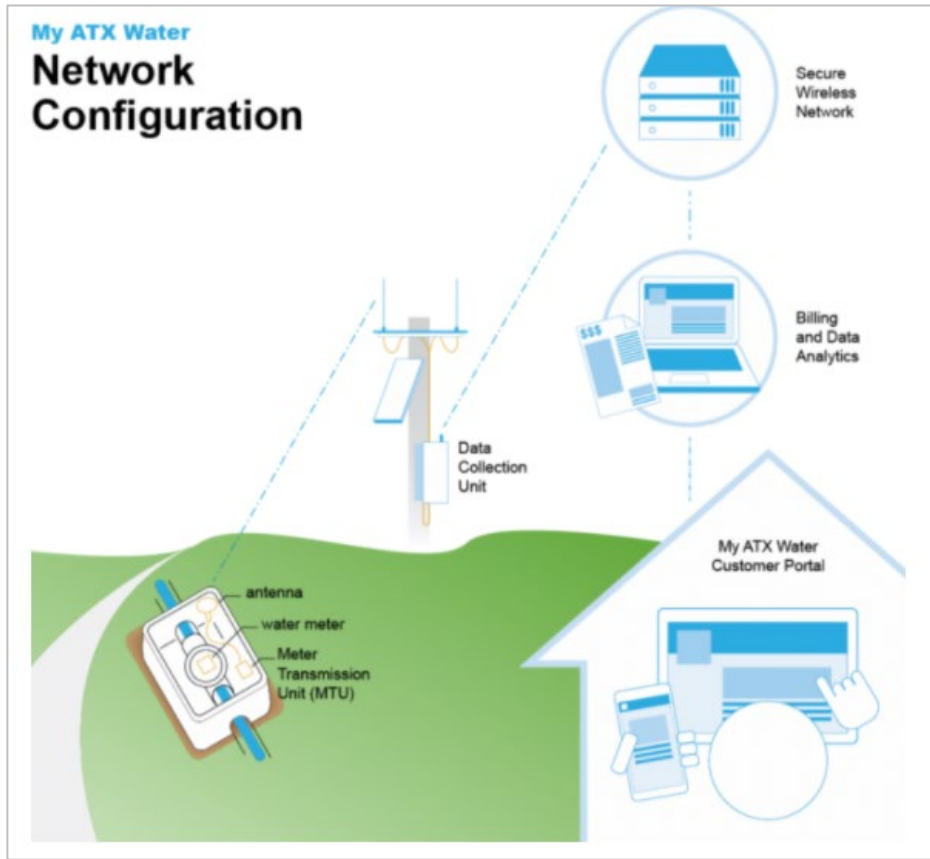
Monthly Inflows to Lakes Buchanan and Travis  
Data through November 30, 2020





# My ATX Water

## Austin's Smart Water Meter System



# Existing and Updated Conservation Programs

## ♦ **New Commercial, Industrial and Institutional Water Conservation Ordinances**

- Added water efficiency standards for drift eliminators in cooling towers and the requirement that biocide be used in the cooling tower recirculating water
- Imposed administrative penalties for failure to submit required cooling tower registration and annual inspection reports
- Made facilities not submitting required registration and reports ineligible for evaporative loss credit on the wastewater bill

## ♦ **New and Revised Water Conservation Incentive Programs**

- Added new measures and equipment for residential and commercial irrigation system efficiency upgrades and landscape transformation rebates
- Added new rebate programs for residential “Laundry to Landscape” graywater reuse and efficient pool backwash cartridge filters
- Doubled rebate amounts based on new cost/benefit benchmarking information contained in the 2018 Water Forward Plan
- Streamlined the rebate application review and approval process



# Alternative Water Ordinances

## Phase I currently in effect

### Voluntary OWRS Program

- New OWRS regulations in Title 15 (Utility Regulations) for the design, permitting and operation and maintenance of multi-family & commercial systems

## Phase 2 targeted to take effect 2023/2024

### Mandatory OWRS Program

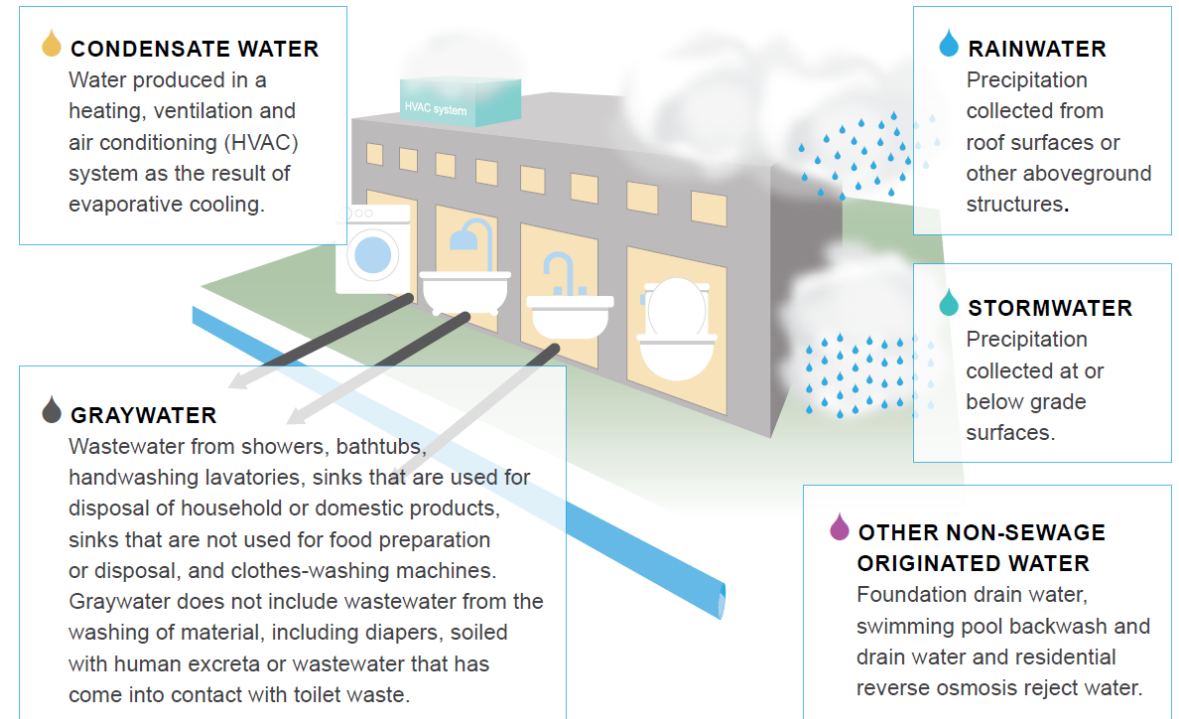
- Mandatory installation of OWRS for commercial and multi-family developments >250,000 sq. ft. in Title 25 (Land Development Code)
- Rules will be posted on the applicability for the mandate along with provisions for enforcing the mandate





# Alternative Water Incentives

- 💧 Pilot incentive program developed
- 💧 Projects reusing >1,000,000 gallons per year of water are eligible for \$250,000
- 💧 Projects reusing >3,000,000 gallons per year of water are eligible for \$500,000



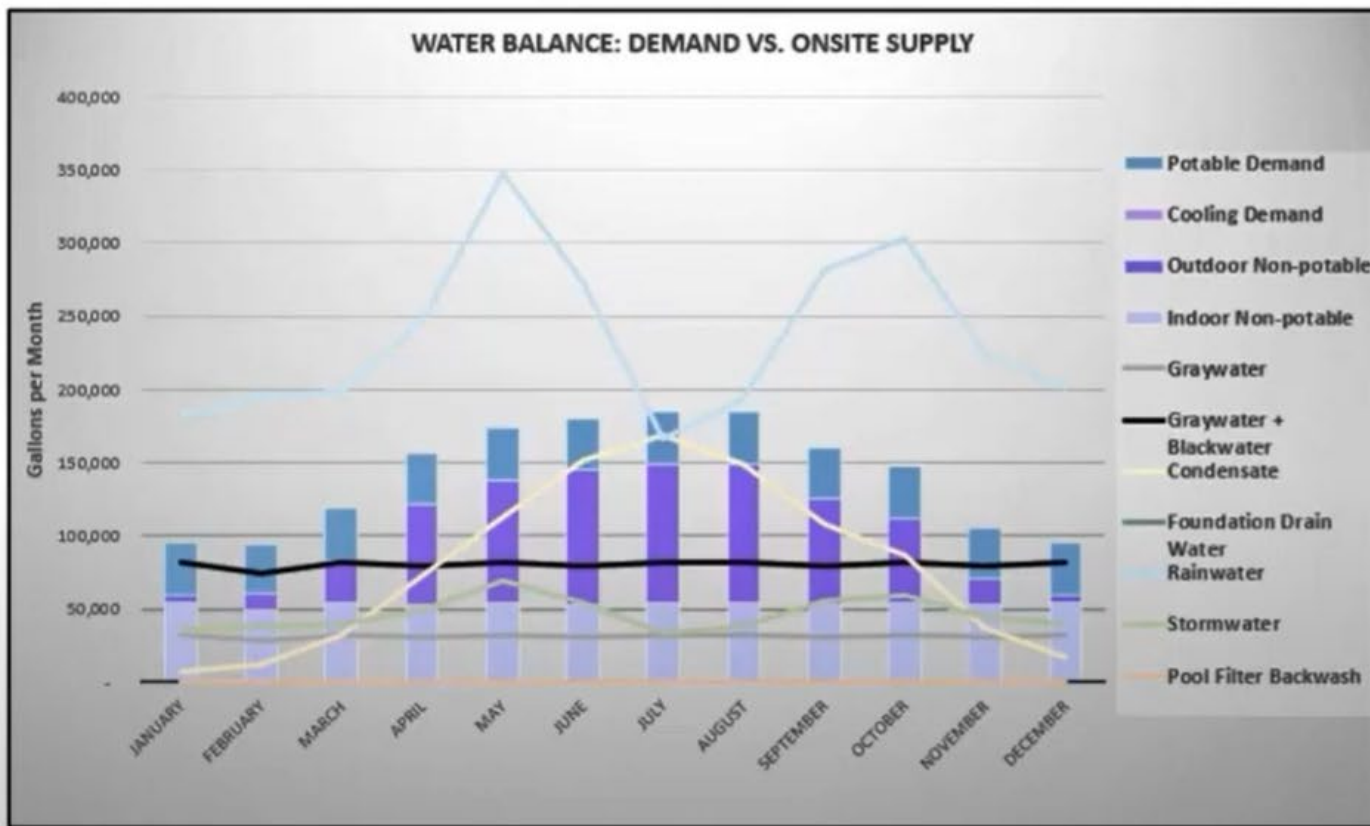
# Onsite Water Blackwater Reuse Pilot

**OSCAR (On-Site Collection and Reuse) and  
CLARA (Closed-Loop Advanced Reclaimed Assembly)**





# Water Use Benchmarking



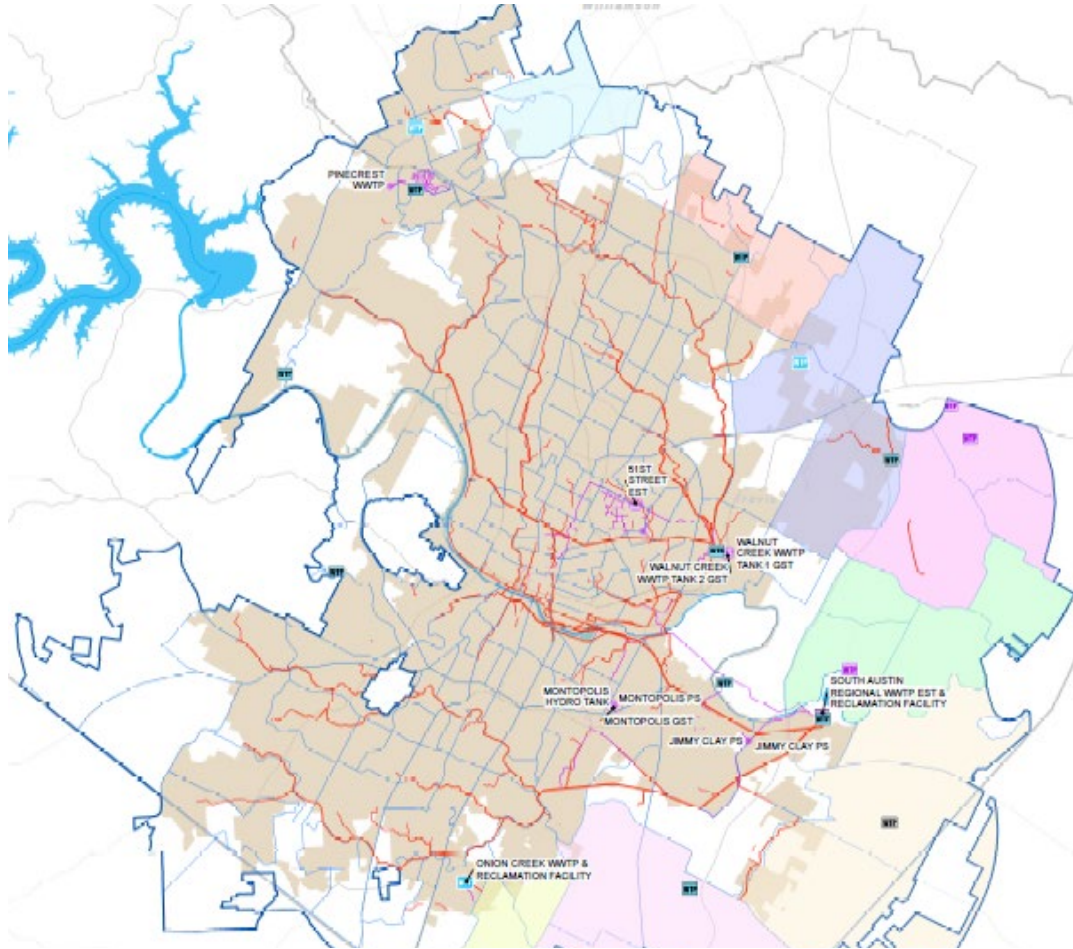
DEMANDS	PROJECT SUMMARY	SUPPLIES
GPD = gallons per day GPY = gallons per year		
<b>POTABLE DEMANDS:</b> <b>POTABLE FIXTURES/FEATURES</b> 1,200 GPD 426,100 GPY		<b>GRAYWATER</b> 1,000 GPD 373,300 GPY
<b>NON-POTABLE DEMANDS:</b> <b>INDOOR FIXTURES/FEATURES</b> 1,800 GPD 645,100 GPY		<b>GRAYWATER + BLACKWATER</b> 2,600 GPD 964,100 GPY
<b>COOLING</b> - GPD - GPY		<b>CONDENSATE WATER</b> 2,600 GPD 955,200 GPY
<b>OUTDOOR IRRIGATION/FEATURES</b> 1,700 GPD 627,200 GPY		<b>FOUNDATION DRAIN WATER</b> - GPD - GPY
<b>TOTAL NON-POTABLE DEMAND</b> 5,000 GPD 1,917,400 GPY		<b>RAINWATER</b> 7,700 GPD 2,815,700 GPY
		<b>STORMWATER</b> 1,500 GPD 559,100 GPY
		<b>POOL FILTER BACKWASH WATER</b> - GPD - GPY
		<b>TOTAL ONSITE SUPPLIES</b> 15,000 GPD 5,294,000 GPY



# Centralized Reclaimed



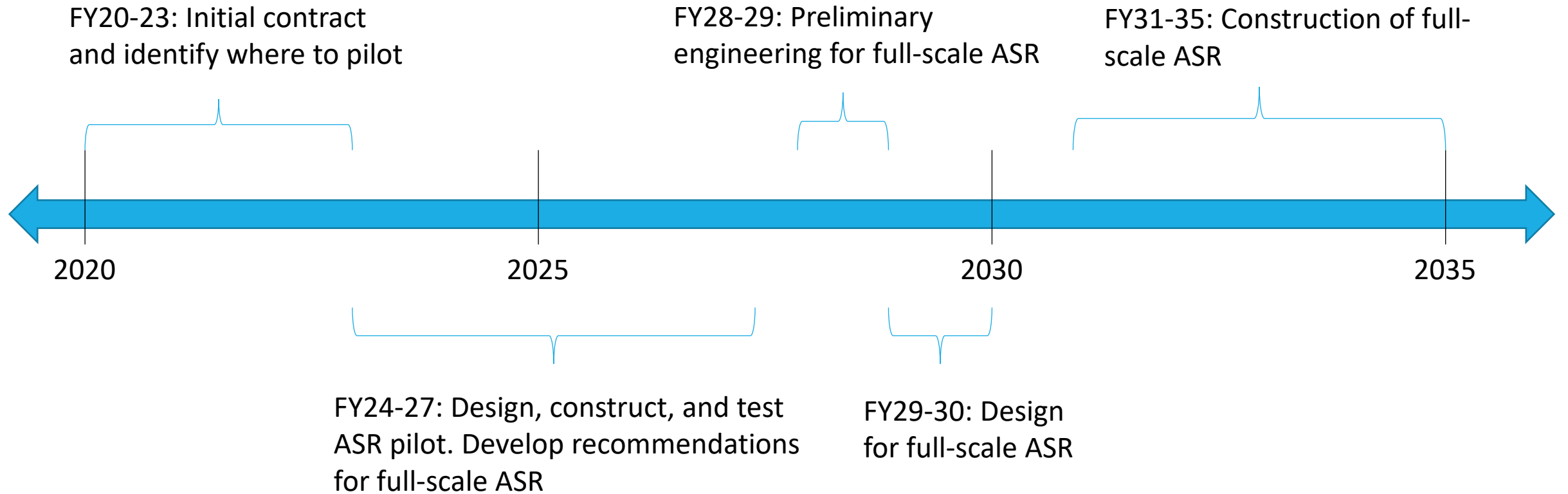
# Decentralized Reclaimed



Preliminary Draft Conceptual Areas for Further Study

- Staff re-evaluating long-range infrastructure planning processes to better identify and integrate opportunities for decentralized reclaimed

# Aquifer Storage and Recovery





# Looking Forward

- Continued community and stakeholder engagement
- Further study to inform the implementation of a future Indirect Potable Reuse project
- Anticipated completion of the Centralized Reclaimed Water Master Plan
- Preliminary analyses, scoping, and kickoff for Water Forward Plan update, to be completed in 2023



	FY21 Q2 Progress	Current/Planned FY21 Q3 Activities	Future Implementation Steps
Water Forward 2023	AW staff began development of a draft scope outline for the five year update to Water Forward 2018, to be completed in 2023. AW also began preliminary technical work to support the plan update.	AW will gather Water Forward Task Force input on the Water Forward 2023 scope, begin targeted consultant procurement for specific tasks, and continue planning and technical work to support the plan update.	FY21: Pre-planning & begin community engagement FY22: Update methodology, demands, climate & hydrology analysis, and identify water needs FY23: Identify strategies, develop & evaluate portfolios, develop recommendations & plan
Protecting our Core Colorado River Supplies	Texas Water Development Board (TWDB) approved the adopted 2021 Regional Water Plan submitted by Region K.	AW will review TWDB's draft 2022 State Water Plan.	FY21: State Water Plan finalization and initial planning and consultant selection for 2026 Region K plan.
Conservation	<a href="#">My ATX Water</a> systems testing pilot including nearly 5,000 water meters almost complete.	Pre-install field surveys continue and meter installations will continue and include ~2200 additional meters.	FY21: Installation of 250,000 meters continues. FY25: Anticipated project completion.
Onsite Water Reuse	AW completed development of Onsite Water Reuse Pilot Incentive program.	AW received Council spending authorization for Onsite Water Reuse Pilot Incentive program.	FY21: AW will begin stakeholder outreach to potential incentive candidates.
	AW's Onsite Water Reuse Systems (OWRS) Team began implementation of the Council-approved <a href="#">OWRS Ordinance</a> .	AW will begin stakeholder outreach and publish guidance documents to educate the development community on the OWRS Ordinance.	FY23/4: Anticipated onsite water reuse mandate in effect for new developments >250,000 square feet.
Centralized & Decentralized Reclaimed	AW continued work to 1) implement AW's 2013 Completing the Core plan to create a reclaimed loop through downtown and east Austin and 2) update the Centralized Reclaimed Master Plan.	AW will continue to support reclaimed infrastructure projects, development review, and updates to the Centralized Reclaimed Master Plan among other activities.	FY21: Anticipated completion of updates to the Centralized Reclaimed Master Plan and development of a Decentralized Reclaimed planning products. FY25: Anticipated completion of the downtown & east Austin core reclaimed loop.
Drought Supplies	The ASR Pilot and Program Management project contract with HDR, Inc. was executed in March 2021.	Work continued on the ASR Pilot and Program Management Project, including team chartering, data gathering, and initial technical and community engagement work..	FY20-23: Initial contract and identify where to pilot. FY24-27: Design, construct, and test ASR pilot. Develop recommendations for full-scale ASR. FY28-35: Preliminary engineering, design, construction of full-scale ASR.





# QUESTIONS

